CATS NEWSLETTER

DESKTOP PUBLISHING ON THE QL

CATS PICNIC: SEPT 24 GREENBELT PARK

IN THIS ISSUE

CONTRIBUTORS

Bill Barnhart   Vernon Smith
George Rey   Hank Dickson
Fred Nachbaur   Wilf Rigter
John Colonna   Duane Parker
Dave Klinkhamer   Thomas Roth
Pieter van Dijk

PRESIDENTIAL RAMBLINGS

Picnic

Mark your calendars now for the CATS picnic to be held Saturday, September 24th at the Laurel area of the Greenbelt Regional Park.

Hamfest

CATS has a table at the 1988 Gaithersburg Hamfest that will be held Sunday, September 11th. Come out and see us and get a chance at some great buys at the flea market! To prepare us for buying, our resident guru, Tom Bent, will discuss at our September meeting those items that are good buys and what are reasonable prices. He'll also share with us those items to steer clear of at any price.

Chip Shots

The club has two group buys for members going. One is the anti-bounce keyboard chip (8749) for the QL that prevents multi-key strikes for people like your president who will never win any touch typing contests or for those who like to have the latest technology in their QL's. Vernon Smith is arranging the buy, so if you did not sign-up at the August meeting please contact him for more information or to put you order in. The second chip is to improve performance of your QL disk drives if you have non-Cumana disk interface. [It will work with the Cumana but the Cumana chip is not socketed and would require some effort to replace.] Contact Tom for more information.

FROM THE EDITOR

I just found out that civilian life is very much like it was in the military. When I got the packet of materials for the newsletter from Bill Barnhart, I found out that I was "in charge" of the group buy for the keyboard controller chips. Sort of reminds me of the "old days", when you returned from vacation you found you had orders to the Alaskan DEW Line, the Korean DMZ, or some other plush tourist area.
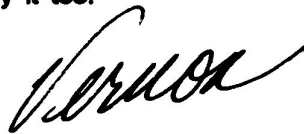
I guess most of the September meeting will be taken up with news about the Cleveland Fest, but at the risk of stealing their thunder, I will throw out a few of the jewels and/or rumors. A+ found some more QLs to sell. It appears that Sinclair owed Samsung of Korea some money and Samsung was holding the computers "hostage". The debt was paid and so 1000 more QLs are on the market. Look for a Sinclair MS-DOS machine. That's right MS-DOS. Seems Uncle Clive wanted to use his name again; however, Amstrad said nothing doing. They bought the Sinclair name along with everything else when Clive chucked it a few years ago. Incidentally, the "Sinclair" machine is just an Amstrad with another name. As far as I'm concerned, it's still an Amstrad!

In case you didn't know it, the CATS Newsletter won Second Place in the big Time Designs newsletter shootout. We tied with ZX-Appeal (Vancouver, British Columbia) and were beaten by The Hacker from Las Vegas. We beat some excellent competitors, Peter Hale's Boston Computing Society comes readily to mind, so I'm thankful. Being Number 2 means that we will have to work a little bit harder during the next year. You can help me, as you've done in the past, by keeping the articles coming. Speaking of help, we will all have to pitch in if we are to make OUR fest successful. We have everything going for us in the areas of geographical proximity to large population centers and the big tourist draw, the city of Washington! We'll need you creative energies if we are to make the event a success.

If you are curious about what lies ahead in this issue, I will end the suspense. George Rey has a teaser about his CYA workshop. If you haven't attended, you should. Pieter van Dijk has a program for using the Z88 in conjunction with the QL to generate graphics! Pieter never ceases to amaze me with the wide variety of articles he produces. As an intro to my meeting presentation, I put down a few of my thoughts on desktop publishing. I will go into greater detail at the meeting. Duane Parker's Audit Committee submitted their report and, as expected, Ruth's books passed with flying colors. Congratulations to Ruth for a job well done. Hank Dickson continues with the transcript of the "Ask Mannie Show" on hardware interfacing. Our own member, Herb Bowers', Money Machine II is reviewed by the SINCUS Newsletter. Finally, there is information on the keyboard controller chip group buy.

Don't forget the Picnic. It's September 24th, at the Laurel Picnic Area in Greenbelt Park. Directions are on page 3. I had a lot of fun putting this issue together and I hope you enjoy it too.

Vernon

SEPTEMBER MEETING AGENDA

11:00 Hardware Workshop

12:00 CYA Workshop

1:00 Lunch

2:00 General Meeting

2:45 Desktop Publishing from an Editor's Point of View-Vernon Smith

3:30 Open Discussion

4:30 Adjourn

CYA WORKSHOP by George Rey

We have a new name, now CYA stands for Cover Your Assets (not Anatomy), with a QL(eaf), of course.

Stock market data will be made available by Bob Diggs—for show or copy. Also, inflation indicators (GNP Deflator and Producer Price Index) and their uses will be discussed alongl with money (M2V) growth and GNP's (Real or Imagined). Real values refer to inflation adjusted nominal values of key indicators.

In pursuing our first objective (to determine secular economic trends), we are using S. Leeb's four guides. These are:

(1) Real GNP > Inflation Rate (GNP Deflated)

(2) Real AAA Bond Yields > Inflation Rate (Producer Price Index Adjusted)

(3) Federal Funds Rate < AAA Bond Rate

(4) M2V must be growing, ie., Real M2V = or > Real GNP

When the above conditions are all in sync, a growing economy is sustainable and equity (stock) markets should respond bullishly. When they are not in sync, watch out for bears, or stand aside.

To meet our first objective, we are developing a data base over a two year period, smothing out the variations with an appropriate moving average (ma) using Abacus, and then translating the half dozen parameters onto Easel for comparison and analysis. Once we have the initial data base established, a few minutes a month should keep the

data updated and investment trends should become apparent. With this road map, one might find Cibola.

Second Annual

PICNIC IN THE PARK

If you made the picnic last year, you know what a good time we had. This year's event should be even better. CATS will be furnishing charcoal, drinks, and chips. You furnish the meat and buns. Bring the wife (or husband), a friend, or kids. Everyone's welcome. See the directions below to the picnic area. Festivities start at 11 AM. The funeral pyres will be ignited at Noon and burnt offerings will commence soon after. DON'T MISS IT!

PICNIC

DIRECTIONS

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Typical CATS member slaving over hot charcoal "disk".
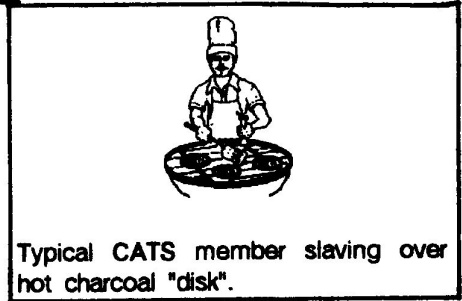
RAMBLINGS (From Pg. 1)

- **CLEVELAND FEST**

The Cleveland Fest was held August 27-28. We will get a full report on activities at the meeting.

- **MEETING TOPICS**

George Rey has put together the meeting topics for the next year. They will be discussed at the meeting. As usual, George has done an excellent job in identifying interesting and useful topics.

- **OTHER**

I would like to thank Tom for the fine presentation at the August meeting; the QL holds fewer mysteries for me now! I want to welcome Phil Russo to the Executive Board; he's filling the seat vacated by Tom Bent as he (Tom) moved over to his newly created seat for the Immediate Past President. On a personal note, I would like to offer my condolences and those of the other CATS members to our newsletter editor, Vernon Smith, and his family on the death of his mother last month at the age of 84.

See you at the meeting.

Bill
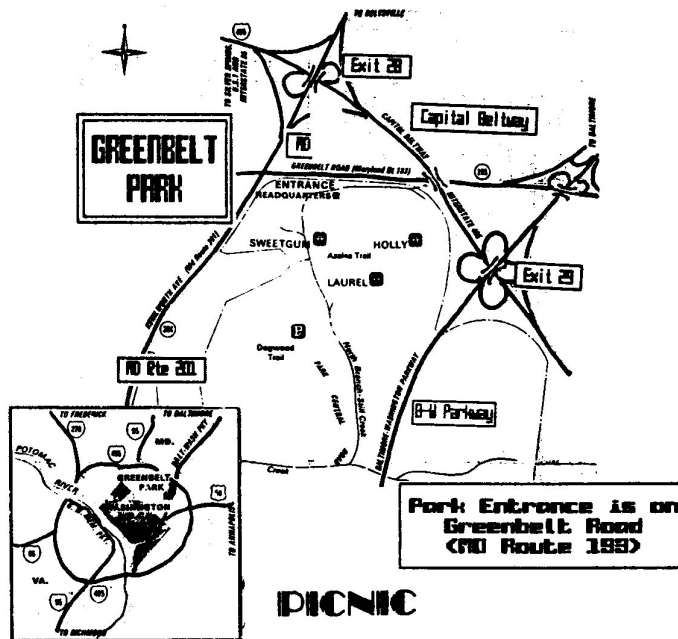
QL on the QT by Vernon Smith

• WRITETURN

Last month I promised an in depth look at Writeturn, Sector Software's answer to the problem of "the too big spreadsheet" and how you can print it. This is a problem on printers with 8 1/2" carriages, if you want to label rows and include all 12 months plus a yearly total. If you run over 132 columns, condensed print won't work. What you need is the ability to turn the page 90°, so the top of the page prints down the side. Last year Talent produced Sideways but its drawback was that it used a downloadable character set and many printers, *including the QL printer*, don't have that capability. Writeturn turns the characters with the software to overcome that problem. In my estimation that's the only thing they've done right (write?). After working with Writeturn, you can really appreciate the work that Talent put into Sideways.

Writeturn has many MAJOR drawbacks, which, I feel make the program useful to a very limited degree.

First, the documentation consists of a two page _doc file. This is too little to explain anything more than the very basic rudiments but then, considering how crude and how few features the program really has, it is probably all they could say.

Second, the program has only 6 options for number of rows on a page (48,57, 64, 72, 96, and 192). Up to 250 columns are allowed. If your spread sheet has the maximum number of rows Abacus will allow, 255, or is over 250 columns, you are out of luck. Also, it puts all 192 rows on ONE page. With this option the rows are squeezed down so much that the spreadsheet is completely unreadable!

Third, the file must be titled as "si_lis"; therefore, to run the program more than once, you must use several disks. Isn't that smart? Hav-

ing to title the file "si" can be confusing since it prevents you from using a unique file identifier.

Finally, I get solid cursor marks at the end of each line and on blank lines, in the left hand margin. Why? How do I get rid of them? Who knows. The "docs" certainly don't say. If I ever get time I may write Sector to find out, but then I don't want to waste 45 cents on the postage.

If you are getting the idea that I think this program is a waste of money, you are correct. I wish I could get mine back. I take back everything I said about Sideways, now that I've used Writeturn.

• text[87]

I've received text[87] and I am in the process of learning how to use it. As Peter Hale's review in the June issue indicated, it is a large and complex program which takes some time to learn to use correctly. As soon as I do, I will be able to give you some tips. There are some features about the program that really intrigue me. You can have up to 4 columns on a page, just like a newspaper, which ought to make production of the newsletter a great deal easier. Fountext[87], the printer driver, has been supplemented by 24[88], a set of drivers for 24 pin printers. The Epson GQ3500 laser printer is also supported and they will produce others on request. Another nice touch is the recognition that there will be North American buyers so a price list is quoted in dollars and they will accept dollar denominated postal money orders. I'm eagerly looking forward to the introduction of their graphic printer driver, fountext[88]. If it can be integrated into text[87], there is the potential for having a first rate desktop publishing system for the QL!

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• IBM Copy

Last month, in the Editor's column, I indicated that the IBM Copy program is extremely useful and easy to use. If you think that you will have to read a MS-DOS disk on your QL, this is the ONLY utility you need. This is my idea of a "must have" program.

• What about our group?

I was hoping to review *Taking the Quantum Leap* by Mike deSoza in a future issue. I wrote to him stating that our user group contained more QL users than any other and, therefore, we might be a fertile ground for sales of his book. He replied that they don't send out review copies to "groups such as yours"(?) and they wanted me to be happy with a favorable review by Mark Fendrick in Computer Shopper. Well, I'm not. I happen to feel I'm smart enough to make up my own mind. Since they want me to review the book using a magazine article, I will! Out of 14 chapters, only four concern themselves with the Psion software and two more address printer and monitor compatibility. So, if you want to pay $26 for six chapters of information, some of which may already be covered in the User Guide, go right ahead. I certainly am not.

• ZX8301...where are you?

Let me close with a hot rumor (or since it's from England is a rumour?). Syd Day from QUANTA indicates that additional ZX8301 chips are going to be produced. In my dealings with PV Tubes and Strong Computers I've found out that at the present time there are none available. If the QL is to stay alive, a supply of these chips is mandatory. I hope this rumor is fact!

Don't forget the picnic on the 24th. Till next month.

GRAPHICS AND THE
Z88 by Pieter van Dijk

The Z88 has no facilities to show graphics on its screen. But in combination with a QL it is possible to get graphic output from a Basic program, run on the Z88! What you need is a cable from the Z88 to the SER port on the QL and the TURBO compiler to compile a little program on the QL.

The Superbasic program for the QL is shown below:

```
100   DIM A$(1),B$(256)
110   OPEN#3,SER2:B$=' '
120   COMMAND_LINE
130   TYPE_IN"INK#0,0:"&CHR$(10)
140   REPeat loop
150   A$=INKEY$(#3)
160   IF A$=CHR$(13)
170   A$=INKEY$(#3)
180   TYPE_IN B$&CHR$(10):B$=A$
190   IF A$=CHR$(163): EXITloop: END IF
200   ELSE
210   B$=B$&A$
220   END IF
230   END REPeat loop
240 TYPE_IN"WINDOW#0,512,50,0,206"&CHR$(1-
0)
250   TYPE_IN "INK#0,7"&CHR$(10)
260   CLOSE#3
```

This program monitors SER2 and redirects every string it receives to Superbasic channel#0 as if it was typed in on the QL keyboard. This is done with the TURBO commands TYPE_IN and COMMAND_LINE which are included in the Runtime
Extensions of TURBO. In order to make the command lines invisible INK#0,0 is used at the start of the program and INK#0,7 at the end to make input visible again. Line 150 and 170 read incoming characters. Line 160 checks for the end of a
string and line 190 detects the end of the program on the Z88 (Char 163 is used for this purpose).

When preparing for compiling the Superbasic windows and ink colours have to be set as they are copied into the compiled program. I used the following:

```
WINDOW 512,256,0,0:INK 7:PAPER 0:CLS
INK#0,0:CHARGE
```

In the TURBO Panel the number of windows is set to 2 (#0 and #1),and the compiled file is called GRAF_EX

The following Boot Program can be used to start the compiled program:

```
100   A=RESPR(5534):LBYTES
FLP1_RUNTIME_EXTS,A
110   CALL A
120   WINDOW 512,256,0,0:PAPER 0:INK 7
130   WINDOW#0,6,10,0,246:PAPER#0,0:IN-
K#0,7
140   CLS:CLS#0
150   EX FLP1_GRAF_EX
```

Lines 120 to 140 are used to tidy up the windows and line 150 executes the program. The comand EX must be used so that it can multitask with Superbasic. If more than one run is made use RUN 120

An example of a program on the Z88 is shown below:

```
100   C=OPENOUT(":COM.0")
110   PROCt ("CLS:SCALE2000,-1600,-1000-
")
120   FOR L=0 TO 2*PI STEP PI/25
130   X$=STR$(INT(400*COS(L)))
140   Y$=STR$(INT(400*SIN(L)))
150   PROCcir(X$,Y$,"500")
160   NEXT L
170   PROCt(CHR$(163))
180   CLOSE#C:END
190   DEFPROCt(A$):PRINT#C,A$:ENDPROC
200   DEF PROCcir(X$,Y$,R$)
210   PRINT#C,"CIRCLE"+X$+","+Y$+","+R$
220   ENDPROC
```

Line 100 opens a channel to the serial port and 180 closes it again. Command strings for the QL are processed with the procedures t and cir. The calculations are done by the Z88 in lines 120 to 160. Line 170 indicates the end of the program (char 162 is "`" in the QZ88). As can be seen in this program any command can be given to the QL and with the use of procedures it is not complicated.

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DESKTOP PUBLISHING by Vernon Smith
A newsletter editor's viewpoint

Desktop publishing is one of the hot personal computer areas these days. Computer magazines are filled with dtp ads. We look at them, with the slick looking page layouts, and say to ourselves, "Hey, I can do that. No sweat!" So we go out and buy the program, load it up, and find that it is a lot harder than it looks. Sound familiar? I have found out that there are several rules that control the success of any desktop publishing venture.

□ RULES FOR SUCCESS

First, there must be an actual need for dtp, such as a newsletter, rather than a future need. Why? The deadlines of a real requirement speed up the learning process. One big problem, at least for me, is that I'm lazy. If I can't get the hang of how to use a program very quickly, I lose interest and consign it to the "file" box. If I have to produce something, I am forced to learn how to use the software. Second, it pays to be flexible when using dtp. Use it when it makes sense but be aware, that in some instances, the old "paste up" method can save time.

□ NEED SPEEDS LEARNING

I got into dtp over a year ago. I started with the program from Gap but it was so crude that I immediately lost interest. Furthermore, I had no real requirement for its use. Soon after that, Digital Precision introduced Desktop Publisher. About that time I took over the newsletter from John Riley, so it was learn how to use DTP or fall on my face. As far as I'm concerned, DTP was very easy to use even though the documentation, especially in the text handling area, left a lot to be desired. Later in the Fall, version 2.0 of DTP was introduced and it overcame most of the shortcomings of version 1.0. Importation of text files (Quill, The Editor, or ASCII) is difficult to impossible and the instructions in the user's manual for this function are so sparse and poorly written as to be worthless. Why they skimped in this area, I don't

know, since externally produced files are probably the easiest way to prepare text for publication. I will concede, however, that DTP has the most features and is the easiest to use of all of the dtp programs for the QL; however, the Deluxe Edition for 512K QLs costs over $100. When compared with dtp programs available for other computers, is a bit pricey, especially when you consider how poorly it handles imported text files.

□ DON'T WASTE TIME

Which brings us to the second rule. Because of the text entry problems mentioned above, I usually print out a file and then paste it up. This is especially true since I bought a NEC P2200 24 pin printer. For large blocks of text, its letter quality printing looks better than any of DTP's variety of styles. When I first got DTP, I slavishly tried to produce entire pages using it but found that it was taking me far too long to get the newsletter out. Volunteers usually have jobs to pay the rent! I look at this time as well spent, though, since it quickly gave me a familiarity with the program that a casual user wouldn't get. That's the big picture, but how is the CATS newsletter produced?

□ THE CATS NEWSLETTER

The newsletter really starts at the Fairfax Station mailbox. As I read the newsletters, I decide if there are any articles which I want to reprint. If there are, I Xerox them so I can paste them up. These, and the member's articles, constitute the "meat" of the issue.
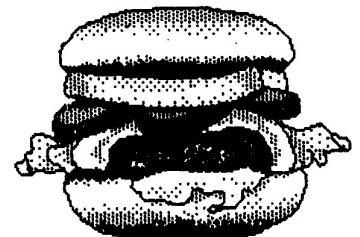
Then there is what I call "boilerplate", those pages that change very little from issue to issue: the cover, editorial, and front pages. The cover page requires a meeting date change and then its ready to print, I save the front page till last so my contents and

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contributor listing will be correct. Presidential Ramblings is pasted in. On Page Two, I change the agenda and the month at the bottom and then it is ready because I paste in the editorial. Since I refer to the contents, it is prepared after the rest of the newsletter is finished. DTP can hold 2 pages in memory, so I have a page of common items that appear in the newsletter, but not in the same place each issue. The information blocks for newsletter submissions, advertising rates, and the tape library are examples of this. I load this page and then "cut and paste" the information to wherever I need it. I take the printed pages and the hardcopy from contributors and other newsletters, and paste them onto 11" X 17" sheets, which, when folded in half, give the required 8 1/2" X 11" pages.

That's how the newsletter is assembled using a desktop publishing program, but, if you're not a newsletter editor, how can you use it? In all honesty, at the present time it's a solution looking for a problem; however, every day there are more uses being "discovered". Use your imagination. Prepare a cover for a report that you use at work, layout a flyer for soccer league signups, or design a bulletin board notice. Here's one. Become the CATS Newsletter Editor when I burn out!

□ THE FUTURE OF dtp

As far as dtp programs on the QL, I wouldn't expect Digital Precision to further upgrade DTP. There just isn't enough financial return for the amount of effort required. For the same reason, I doubt that another program will come on the scene. We will just have to be happy with what we have, which is a great deal.

WRx16 REVISITED!

with F. Nachbaur

Concluded from the July and August 1988 issues and delete the demo portion (everything between and including lines 7 through 540). Leave line 5 in place. Enter line 4,

4 REM BIPLOT

Perform the following POKEs:

    POKE 16645,4
    POKE 16646,1
    POKE 16419,4

Then delete line 5. This will "melt together" the REM lines 2 and 3, giving us enough room for the modified service routines. It also keeps us from getting stuck in the long REM lines at the beginning. Henceforth, you may replace line 4, but not delete it. If you do you'll have to pull the plug to regain control. If you ever get in trouble after LIST, and the listing is stuck, LIST 4 and then POKE 16419,4. That'll fix it.

FROM THE GROUND UP

If you start from scratch, enter a 1 REM line exactly 128 characters long. This is four full lines on the screen, looking like this:

    1 REM xxxxxxxxxxxxxxxxxxxxxxxxx
    xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
    xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
    xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
    xxxxxxxxx

Enter another REM line, numbered 2, long enough to hold at least our present operating system. To leave some elbow-room for any of your additions later, make it, say, 512 bytes long. (FAST mode will make this somewhat quicker.) Then enter the loader program of Listing 2. RUN this to input the values of Table 2 into the 1 REM, and the values from table 3 into the 2 REM.

THE BASIC

Now enter the BASIC program of listing 4. After saving with RUN 9990, the program will auto-run.

Have fun with this. As a final note, let us know if you want to see more reports of new developments. Some possible topics that already exist include: Using SHR-Extended BASIC from machine-code, to end up with a smooth, believable hi-res implementation of the classic SPACE INVADERS game. Using "QUICK" mode with WRx16, or with quasi-hi-res programs. PRINTing characters in high-res.

So once again it's up to you; what do you want us to share with you?

THEORY

Listing 3 shows the disassembly of the modified core

by W. Rigter

and service routines. To make the dual display work, we first have to make some changes to the WRx16 core. From 40BAh to 40C5, we have added a new routine which checks bit 0 of FRAMES. The subsequent commands cause HL to be loaded with 2000h (HRDF #1) or 3000h (HRDF #2), depending on the state of this bit.

When viewing only one display file, the command at 40BD is changed from AND 01 to either LD A,00 or LD A,01. These commands take the same time to execute, so this was just an easy way to insure that the loop will run the same regardless of whether we've viewing just one, or both of the display files.

Note that the command at 40AD was changed, and a NOP was added at 40C5 to compensate for the extra time it takes to run our new code. If you count T-states, you'll see that the overall timing remains exactly the same.

Note also that we load B with only 80h at 40E2, since we are only displaying 128 hi-res lines.

The only other changes are at 40E3 and 40ED. These determine how many low-res rows are displayed. Since the hi-res portion takes 16 rows, we can display 8 lo-res rows for the same 24-row overall display size. However, one row is lost in returning from our hi-res system; this is why we have to kill some time at the start of DP-3, to wait for the start of the first line in the next available row.

The value loaded into DE at 40E3 represents 8000h plus the offset from the start of the normal display file, to the first byte of the starting low-res row to be displayed. The command at 40ED loads B with one more than the number of low-res rows, and C with 7 (always).

Just as our service routine modifies the command at 40BD to change viewing modes, the commands at 40E3 and 40ED could be changed to give a low-res "windowing" option, allowing you to scroll the entire low-res display up and down in the 7-row low-res portion of the display. Use a SYNC routine similar to ours here, to insure that both changes are made right after a vertical sync pulse, since you want to be sure that both changes will be in place by the start of the next field.

```
TABLE 1: WRX16-V2 CORE (DECIMAL)

START=16514    BYTES=128
237:079:000:000:000:000:000:000:
000:000:000:000:000:000:000:000:
000:000:000:000:000:000:000:000:
000:000:000:000:000:000:000:000:
000:000:221:233:243:062:007:071:
000:016:253:198:239:060:032:253:
004:176:017:032:000:033:000:032:
221:033:192:064:024:008:017:032:
000:005:202:207:064:025:124:237:
071:125:195:130:192:237:082:237:
082:035:042:012:064:017:247:130:
025:062:030:237:071:062:245:001:
007:002:205:181:002:205:146:002:
205:032:002:221:033:166:064:195:
164:002:221:033:166:064:201:062:
030:237:071:221:033:129:002:201:
```

```
TABLE 2: BI-PLOT WRX16 CORE

START=16514    BYTES=128
237:079:000:000:000:000:000:000:
000:000:000:000:000:000:000:000:
000:000:000:000:000:000:000:000:
000:000:000:000:000:000:000:000:
000:000:221:233:243:062:007:071:
000:016:253:198:242:060:032:253:
004:128:017:032:000:033:000:032:
058:052:064:230:001:023:023:023:
023:132:103:000:221:033:204:064:
024:008:017:032:000:005:202:219:
064:025:124:237:071:125:195:130:
192:237:082:237:082:035:042:012:
064:017:049:130:025:062:030:237:
071:062:245:001:007:008:205:181:
002:205:146:002:205:032:002:221:
033:166:064:195:164:002:000:000:
```

CATS records in excellent shape

```
                    Duane H. Parker
                    1962 Church Rd
                    Baltimore, MD 21222


August 13, 1988

TO: The Membership of C. A. T. S.


We have examined the C. A. T. S. accounting records
maintained by Ruth Fegley.  We checked the general order
of the records and spot checks several transactions.
The records were in excellent order and the transactions
checked were found to be correct.

A calculation of membership dues paid indicates that 60
members renewed their dues in the last membership year
and 28 new memebers paid dues in the same period.

Our examination of records also indicates that group
buys of hardware have been difficult to record
completely.  The C. A. T. S. accounts presntly suggest
some disbursements for hardware items are due, based on
the following:

            Hardware sold, amt received:   $3536.00
            Paid for hardware:             $2450.00
                       Surplus             $1086.00

Ruth indicates that a properly documented request for
reimbursement has not been received by her by a leader
of one of the good buys.

We recommend that a form be desinged to assist those
members who arrange a group buy.


Respectfully submitted,


Duane H. Parker


and
```

ASK MANNIE--Version 2

NOTE: The following is a continuation of the Q & A session originated in July by CATS member MANNIE QUINTERO, the coverage of which began in the August, 1988 CATS Newsletter.

Q: How does one hook up a 2068 computer to a Seikosha SP-1000 printer?

A: First, it is necessary to determine if the Siekosha is a serial or parallel printer. The consensus is that it is probably serial.

Then, it is necessary to acquire a hardware interface device (or card) which plugs into the port behind the 2068 and which will allow the proper cable to be connected to the printer. These interfaces are widely advertised in Sinclair literature, and are priced around $100.

Also, it is necessary to obtain "printer driver" software. This usually comes with word processing software (such as "M-Term" for the 2068), and permits the computer to intelligently operate the printer.

Or, for a wild solution, it is possible to modify a Sinclair 2050 modem by adding a serial port and connecting the proper cable to the serial printer. The end result will be a modem which can be used for either printing applications or for telephone communications. TIME DESIGNS Magazine, March/April 1988 issue, contains an article on how to accomplish this.

Q: Can I connect my QL printer to a 2068, and if so, how?

A: We're not sure what a "QL printer" looks like. However, to make this combination work, it is certain that a parallel/serial converter (or card) would be needed for the back port on the 2068. This would convert the output of the 2068—normally intended for the 2040 printer—into a form that an "alien" printer could use.

Q: How can I connect my floppy disk drives to my 2068 and my QL for little money?

A: Since low-cost computing is the mission of Sinclair hobbiests worldwide, the question is a challenging one. However, there doesn't seem to be any way of accomplishing this particular task without some outlay of funds. What is needed is a pair of disk interface cards, one for each of the computers. These disk interface cards are available in many flavors, but usually cost around $200.

With some knowledgeable modifications, it should be possible to fix one cable so that it will operate either one disk drive or the other. It will never be possible, however, to connect the disk drive to both computers at the same time, unless you want to install an expensive data-switching box, so you can alternate

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"OH BANNA...GIVE ME A LETTER"

A Software Review of 'Money Machine II'

by John Colonna, SINCUS

Reprinted from SINCUS News, July/August, 1988

Remember when (not meaning to sound like Andy Rooney...but) you had to buy a board game to play your favorite T.V. quiz program? Well, if "Wheel of Fortune" is your favorite gameshow, it is now available for the 2068 computer. Herb Bowers and ABBA Software offer a 'Wheel of Fortune' clone called 'Money Machine II' that captures the essence of this popular television show. You even get a little sprite named 'Banna Brite' to turn those letters. Perhaps the only thing you don't get are the prizes!

Money Machine II is played very similarly to Wheel of Fortune with the spacebar controlling the wheel that sounds incredibly like the one heard on our T.V. sets. Up to three people can play this family, fun game. Individuals can also play by 'passing' the other two players. There are five rounds of competition before the overall winner is declared. Several hundred puzzles are contained on the original cassette and tapes of 800 each are available. Another program is available to make your own puzzles. To avoid repetition while playing at one sitting, the puzzles are randomly selected without using the same puzzle twice. To avoid an unfair advantage from having played previously the players do have the opportunity to choose different puzzles.
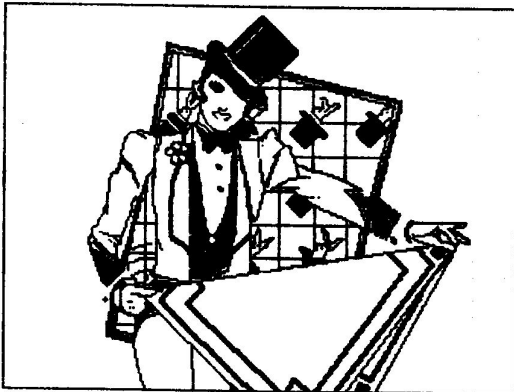
Money Machine II interacts quite well with the players with its bright colors, flashing messages, various print sizes, appropriate audio reactions, and thorough documentation. A game clock keeps players on their toes to encourage continuous play. Every detail seems to have been covered. A method for tie breaking after the end of five rounds is provided. Players are reminded about the free spin they previously acquired. 'Banna' lets you know that your phrase contains an apostrophe. And one does know, when the bonus round is coming up!

Approximately one week after I sent in my order the Money Machine II tape arrived. It came on a LASER C-10 cassette and took about 4 and one-half minutes to load. I had no loading problems and Herb Bowers assures me that all his programs he saved directly from his 2068 without the use of high speed duplicating equipment. He loads each tape twice on different recorders to verify their 'loadability'. Herb is '2068' all the way from the labels on the the cassette and mailing package and to the documntation from the 2040 printer. This software package is available for a modest $12.00 from

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ASK MANNIE

between them.

Q: How can I get a Centronics 704 printer going to my 2068 and my QL? I have no documentation on the printer.

A: It is imperative to have copy of the owner's manual in order to learn how this printer handles the "control codes". This information can then be incorporated in the word processing or application software which will eventually drive the printer.

You will need hardware interfaces for both the 2068 and the QL, or it might be possible to obtain a "black box" for a fairly substantial sum that would serve as an interface between your Centronics printer and both your computers.

But first you need the owner's manual for the printer. I would suggest you contact me, Mannie, via this column, and I will provide you with the address and telephone number of the CENTRONICS Company in New England. Then, at your convenience, you can get in touch with them and tell them what it is you need. Include all the information you have on the model and type of your particular printer. If the manual is out of print, ask who might have a copy you can duplicate. Enclose a SASE and you are likely to get all the information you want!

WE WELCOME YOUR QUESTIONS

Send them to:

Ask Mannie

P.O. Box 467

Fairfax Station, VA 22039
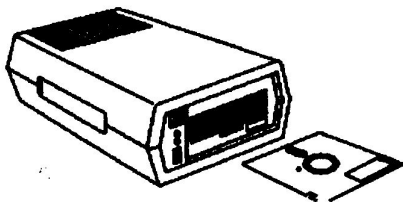
IT'S GROUP BUY TIME AGAIN!

v. 1.2 Keyboard chips

Do your keystrokes give you more than you wanted?

If you are like me, whenever I get around a computer I forget all about the correct way I learned to type "way back" in high school. Now I just use a "one finger" method. Not pretty but effective. Well, sort of... I still "fat finger" a lot of keys and, with the QL, it is a disaster. It seems like I spend half of the time going back and deleting extra characters.

But don't worry. Doctor Smith to the rescue! Have I got a deal for you! The version 1.2 keyboard controller chip. I've installed them in all of my machines and they are things of wonder. Now if you slip off a key, you don't get multiple characters. It won't make you a perfect typist or correct your grammar, but it could cause you to use fewer expletives while you are producing that Quill masterpiece.

This is about the simplist mod we've ever done on the QL. Even those that feel intimidated as soon as the cover comes off, shouldn't feel apprehensive about this job. After the case is open, just remove the big 8049 chip on the bottom right, near the microdrives, and put in the new keyboard controller chip. That's all there is to it. Simple, huh?

So what's it going to cost? I thought you'd never ask. $14.50. Isn't that a cheap price to pay for peace of mind? I will be taking names of people who want the chips, AT THE SEPTEMBER MEETING. For those that can't make the meeting or live out odf the local area, phone or write me. *The DEADLINE for ordering these chips is October 7.*

RAMDISK for the QL

by Mike Mitchell

RAMdisking capabilities can increase the versatility of a computer by providing temporary file storage.

RAMdisk reserves a portion of memory for files. Thereafter you access the file the same way you access it on disk or on microcartridge. There are two differences: The device is called ram as in 'ram1_fred'. The other difference is that access to the file is very much quicker than to files stored on magnetic media.

A practical application is in exporting and importing files between PSION programs.

QDOS anticipated ram disking and allows for up to eight ram disks to be addressed.

Of the two types of ramdisking the first is called dynamic ramdisking and creates eight zero sectored ramdisks. As files are stored in a ramdisk its size expands up to the available free memory in ram; a 'DIR ram1_' might show -22/0 for a file of 22 sectors. The advantage is that only as much free memory is allocated for ramdisking as is required.

The other type, published here, is a static ramdisk. You determine how many sectors you want when formating the ramdisk. A certain amount of guessing is necesary.

Key-in the following Super-BASIC program. There is a lot of hex data but it would be 50% greater in decimal code.

When done, RUN the program with a formatted cartridge in mdv1_. Two things happen: You create "ramdisk_bin", a binary file, and a SuperBASIC file called ram_boot that loads the binary code and generates a sample of ramdisking speed.

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CLASSIFIED ADS

WRx16 Continued from page 7

```
OPTIONAL SYNCHRONIZING ROUTINE
CALL THIS BEFORE CHANGING MODES
TO PREVENT SCREEN FLICKER.

E.G.  CALL SYNC
      JP HRES
OR
      CALL SYNC
      JP NRML

addr HEXCODE  NAME  MNEMONIC
------------------------------
4105 CD2B0F   SYNC  CALL SLOW
4108 FD4634         LD B,(FRMS)
410B 3A3440   NFM?  LD A,(FRMS)
410E B8             CP B
410F 28FA           JR Z NFM?
4111 C9             RET
```

```
TABLE 3: BIPLOT SERVICE ROUTINES

START=16648   BYTES=177
033:062:000:024:008:033:062:001:
024:003:033:230:001:034:189:044:
205:168:065:221:033:166:064:201:
205:168:065:221:103:129:002:201:
000:033:000:032:024:003:033:000:
048:001:000:016:054:000:011:084:
093:019:237:176:201:033:132:064:
001:032:000:126:198:128:119:024:
237:038:032:024:022:038:048:024:
018:205:073:065:024:247:038:032:
024:015:038:048:024:011:205:084:
065:024:247:253:203:059:214:024:
004:253:203:059:150:237:075:094:
044:062:128:061:144:218:173:014:
087:089:203:058:203:027:203:058:
203:027:203:058:203:027:046:000:
025:084:121:230:007:040:001:000:
008:203:002:203:017:061:032:012:
253:203:059:086:040:004:203:193:
024:002:203:129:016:235:113:201:
205:043:015:253:070:052:050:052:
064:184:040:250:062:030:237:071:
201:
```

The Capital Area Timex Sinclair
Users Group

is a not-for-profit group devoted to serving the interests of those who own, use, or are interested in the Timex/Sinclair family of computers.

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CATS maintains a gratis exchange of newsletters with approximately 30 Users groups across the U.S. Clubs not sending a n/l to us for six months are automatically taken off the list.

Networks

Timex SIG on Compuserve: Wednesday night, 10 P.M. Eastern time (GO CLUB).
KZX BBS: (505) 522-7081 FIDO net 15, node 6. East Coast dial (703) 547-4815 FIDO net 18, node 9.

Newsletter

Memberships cost $18 per year, are good for 12 months, and include all privileges (access to libraries, group buys, etc.). A newsletter subscription only is available for $12 per year.

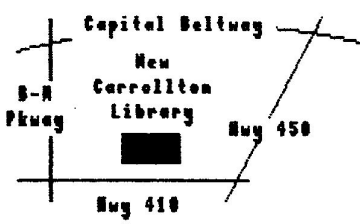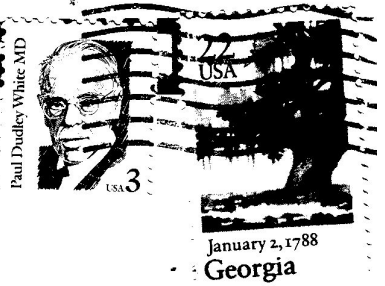## Meetings

Monthly meetings are held from 11 AM to 4:30 PM, on the second Saturday of each month, at the New Carrollton Public Library.

CATS Newsletter
P.O. Box 467
Fairfax Station, VA 22039

Capital Beltway
New Carrollton Library
B-W Pkwy
Hwy 450
Hwy 410

The next meeting of CATS will be held on:

Saturday, September 10, 1988   11:00 AM Hardware Workshop
            12:00 CYA Workshop   2:00 PM General Meeting

At: New Carrollton Public Library
7414 Riverdale Road (Hwy 410), New Carrollton, MD

IF YOU ARE NOT A MEMBER OF CATS, THIS IS THE ONLY ISSUE YOU WILL RECEIVE

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